

REMARKS

Applicants appreciate the Examiner's thorough consideration provided the present application. Claims 1, 2 and 4-16 are now present in the application. Claims 1 and 4-8 have been amended. Claims 12-16 have added. Claim 3 has been cancelled. Claim 1 is independent. Reconsideration of this application, as amended, is respectfully requested.

Allowable Subject Matter

The Examiner has indicated that dependent claims 6-11 would be allowable if rewritten to include all of the limitations of the base claim and any intervening claims. Applicants greatly appreciate the indication of allowable subject matter by the Examiner.

By the present amendment, claims 6-8 have been rewritten in independent form to include their base claim 1 and intervening claim 3. Accordingly, it is believed that claims 6-11 are in condition for allowance.

Information Disclosure Citation

The Examiner stated that the Information Disclosure Statement filed May 31, 2005 fails to comply with 37 C.F.R. §1.98(a)(2). An information disclosure statement is resubmitted concurrently herewith. The Examiner is courteously requested to provide Applicants with an initialed copy of the PTO-1449 form filed therewith with the next official communication.

Drawings

Applicants thank the Examiner for accepting the formal drawings of the instant application.

Claim Rejections Under 35 U.S.C. § 103

Claims 1-5 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Emrich, U.S. Patent No. 6,729,388, in view of Tsutsui, Japanese Patent Application Publication No. JP 10-122787. This rejection is respectfully traversed.

A complete discussion of the Examiner's rejection is set forth in the Office Action, and is not being repeated here.

In light of the foregoing amendments, Applicants respectfully submit that this rejection has been obviated and/or rendered moot. While not conceding to the Examiner's rejection, but merely to expedite prosecution, as the Examiner will note, independent claim 1 has been amended to recite a combination of elements including "each of the first and second vibration members includes a fixing portion and a vibration portion, the fixing portion being attached on an upper surface of the corresponding one of the two adjacent heat exchange plates, the vibration portion being folded at a predetermined angle from the fixing portion along a fold line, the fold line being substantially perpendicular to an air flow direction in the corresponding air path." Support for the above combination of elements can be found FIGs. 5-7 as originally filed. Applicants respectfully submit that the combination of elements as set forth in amended independent claim 1 is not disclosed or suggested by the references relied on by the Examiner.

Emrich discloses a charge air cooler having a ramp-shaped vortex generator with an exposed tab 85 on the web wall 86 (see FIG. 8.) The Examiner referred to the tab 85 as the vibration portion of the vibration member and referred to the web wall 86 as the fixing portion of the vibration member. Emrich discloses that the tab 85 is partially punched out from the web wall 86 (see col. 5, lines 1-8; FIG. 8.) However, as shown in FIG. 8 of Emrich, the fold line between the tab 85 and the web wall 86 is an oblique line on the web wall 86. Since the fold line between the tab 85 and the web wall 86 is not substantially perpendicular to the main flow direction 40 (see FIG. 2), Emrich fails to teach “the vibration portion being folded at a predetermined angle from the fixing portion along a fold line, the fold line being substantially perpendicular to an air flow direction in the corresponding air path” as recited in amended independent claim 1.

With regard to the Examiner’s reliance on Tsutsui, this reference has only been relied on for its teachings related to the vibration portion of the vibration member. In particular, Tsutsui simply discloses that a thin plate 21 is parallel to the air flow direction and is vibrated by applying a voltage onto the piezo-electric film 5b (see paragraph 0010 and FIG. 5.) This reference also fails to disclose the above combination of elements as set forth in amended independent claim 1. Accordingly, Tsutsui fails to cure the deficiencies of Emrich.

Accordingly, neither Emrich nor Tsutsui individually or in combination teaches or suggests the limitations of amended independent claim 1. Therefore, Applicants respectfully submit that amended independent claim 1 clearly defines over the teachings of Emrich and Tsutsui.

In addition, claims 2, 4 and 5 depend from independent claim 1, and are therefore allowable based on their respective dependence from independent claim 1, which is believed to be allowable.

In view of the above remarks, Applicants respectfully submit that claims 1, 2, 4 and 5 clearly define the present invention over the references relied on by the Examiner. Accordingly, reconsideration and withdrawal of the rejection under 35 U.S.C. § 103 are respectfully requested.

Additional Claims

Additional claims 12-16 have been added for the Examiner's consideration. Support for new claims 12-16 can be found FIGs. 5-7 as originally filed.

Applicants respectfully submit that claims 12-16 are allowable due to their respective dependence on independent claim 1, as well as due to the additional recitations included in these claims.

Favorable consideration and allowance of additional claims 12-16 are respectfully requested.

Additional Cited References

Since the remaining patents cited by the Examiner have not been utilized to reject the claims, but rather to merely show the state of the art, no further comments are necessary with respect thereto.

CONCLUSION

All the stated grounds of rejection have been properly traversed and/or rendered moot. Applicants therefore respectfully request that the Examiner reconsider all presently pending rejections and that they be withdrawn.

It is believed that a full and complete response has been made to the Office Action, and that as such, the Examiner is respectfully requested to send the application to Issue.

In the event there are any matters remaining in this application, the Examiner is invited to contact the undersigned at (703) 205-8000 in the Washington, D.C. area.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§1.16 or 1.17; particularly, extension of time fees.

Dated: July 12, 2006

Respectfully submitted,

By 

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